

**WHAT IS CLAIMED IS:**

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1 1. A method for estimating repair accuracy of a mask  
2 shop comprising the steps of:  
3 providing a mask having a light-shielding layer with a  
4 pattern of a plurality of lines, each of which has a defect;  
5 using the mask shop to repair the defects, whereby  
6 contaminated areas are formed in the vicinity of areas where  
7 the defects are repaired;  
8 measuring first light intensities of the contaminated  
9 areas, and second and third light intensities of two sides  
10 of the contaminated areas; and  
11 calculating ratios of means of the second and third  
12 light intensities to the first light intensities for  
13 estimating the repair accuracy.

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1 2. The method as claimed in claim 1 further comprising  
2 the step of:  
3 calculating a mean and  $3\sigma$  value of the ratios.

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1 3. The method as claimed in claim 1 wherein the lines  
2 comprise a plurality of vertical and horizontal lines.

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1 4. The method as claimed in claim 3 wherein widths of  
2 the lines range from  $0.5\mu\text{m}$  to  $2\mu\text{m}$ .

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1 5. The method as claimed in claim 1 wherein widths of  
2 the defects along the lines range from  $0.3\mu\text{m}$  to  $1.5\mu\text{m}$ .

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1           6. The method as claimed in claim 1 wherein the defects  
2           are indentations on the lines.

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1           7. The method as claimed in claim 1 wherein the light-  
2           shielding layer is a chrome layer.

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